

Appl. No. : 10/624,816  
Filed : July 22, 2003

## REMARKS

In response to the Office Action mailed April 29, 2005, Applicant has not made any amendment to the Claims. Claims 1-14, 17-19, 22 and 23 are currently pending in the application. Applicant respectfully requests the reconsideration of the application in view of the remarks set forth below.

### **Discussion of Claim Rejections under 35 U.S.C. § 102(b)**

Claims 1-13, 14, and 17-19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Diethelm (U.S. 4,913,148, hereinafter Diethelm). Applicant respectfully submits that pending Claims 1-13, 14, and 17-19 are allowable over Diethelm as discussed below.

Applicant respectfully submits that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *See* M.P.E.P. § 2131.

Diethelm does not teach or suggest a method of treating viral infections wherein the second electrode defines another closed contour configuration that surrounds the closed contour of the first electrode. Furthermore, Diethelm teaches against this feature by repeatedly stating that the second electrode (cathode) should be placed far away from the first electrode (anode). In col. 1, ln. 49-53, Diethelm states that two conducting electrodes are applied: “an anode” and “a cathode....as far away from the anode as possible.” In col. 2, ln. 44-52, Diethelm states that an anode should be placed on the affected dermatome at the spinal ganglion while the cathode is placed “at the distal part (i.e., away from the spinal ganglion) of the affected dermatome.” In col. 2, ln. 60-61, Diethelm teaches that “[t]he cathodes are placed at the point of the affected dermatome most distant from the anode.” Diethelm clearly shows in Figure 3 that the contour of the cathode (the second electrode) does not surround the anode (the first electrode) (*see* also col. 6, ln. 45-51, wherein Diethelm teaches that the anode is located in G’ having a surface of diameter of 13 mm while the cathodes are located in K1 to K3 having a surface of diameter of 29 mm.)

Each of independent Claims 1, 7, 13, and 14 comprises the feature that the second electrode defines another closed contour configuration that surrounds the closed contour of the

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first electrode. Applicant respectfully submits that because Diethelm fails to teach or suggest at least this feature, Claims 1, 7, 13, 14 are not anticipated and are in condition for allowance.

Diethelm also does not teach or suggest a method of treating viral infections comprising the application of alternating periods of AC and DC electrical simulation as recited in independent Claim 9. An AC (alternating current) signal is a time-varying signal whose polarity varies with a period T, and whose average value is zero. A DC (direct current) signal is a signal whose polarity and amplitude do not vary with time. Diethelm teaches the application of current in the form of monopolar square wave pulses (*see* col. 1, ln. 55-58 and Figure 7). This is a DC signal because the current stays constant within each pulse and because the average value of each monopolar square wave pulse is substantially larger than 0. Even though Diethelm teaches that the current intensity may be adjusted during treatment, it at most discloses the application of DC electrical simulation whose current intensity may be adjusted. Diethelm fails to teach the application of AC electrical simulation. It then follows that it fails to teach the application of alternating periods of AC and DC electrical simulation. Moreover, in the circumstance the Examiner were to take the position that the monopolar square wave pulses are AC signals, Diethelm only discloses the application of AC electrical simulation. This is because square wave pulses are the only kind of signals taught in Diethelm, and such signal cannot be both AC and DC signals. Diethelm still fails to disclose the application of alternating periods of AC and DC electrical simulation. Applicant respectfully submits that because Diethelm fails to teach or suggest this feature, Claim 9 is not anticipated and is in condition for allowance.

#### **Claim Rejections – 35 U.S.C. § 103(a)**

Claims 22-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Diethelm in view of Lathrop (US 5,133,352, hereinafter Lathrop). To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *See* M.P.E.P § 2143.03. Neither Diethelm nor Lathrop teaches or suggests the feature that the second electrode defines another closed contour configuration that surrounds the closed contour of the first electrode as recited in independent Claim 22.

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As discussed above, Diethelm does not teach or suggest the feature that the second electrode defines another closed contour configuration that surrounds the closed contour of the first electrode. Lathrop does not teach or suggest the feature either. Lathrop teaches against this feature by stating that the two electrodes are spaced apart one-half inch to one-and-a-half inches (see Figure 1 and col. 6, ln. 56-68). Applicant submits that the Examiner cited Lathrop in support of teaching other features.

Therefore, Claim 22 is not anticipated by Diethelm in view of Lathrop and is in condition for allowance.

#### **Dependent Claims**

Claims 2-6, 8, 10-12, 17-19, and 23 are dependent either directly or indirectly on the above-discussed independent Claims 1, 7, 9, 13, 14, and 22. Applicant respectfully submits that pursuant to 35 U.S.C. § 112, ¶ 4, the dependent claims incorporate by reference all the limitations of the claim to which they refer and include their own patentable features, and are therefore in condition for allowance. Therefore, Applicant respectfully requests the withdrawal of all claim rejections and prompt allowance of the claims.

#### **Discussion of Claim Rejections under Double Patenting**

Claims 1 and 7 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3 of Silverstone (US 6,618,625, hereinafter Silverstone). Claims 22-23 were also rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2 and 5 of U.S. Patent No. 6,618,625. In response, a terminal disclaimer has been filed. Withdrawal of these rejections is respectfully requested.

#### **Conclusion**

In view of Applicant's amendments to the application and the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the

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application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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